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RAW SEQUENCE LISTING DATE: 12/26/2000
PATENT APPLICATION: US/09/731,816 TIME: 15:15:28

Input Set : A:\PF470P1.ST25.txt
Output Set: N:\CRF3\12262000\I731816.raw

3 <110> APPLICANT: Ebner, Reinhard
4 Ruben, Steven
6 <120> TITLE OF INVENTION: Interleukins-21 and 22
8 <130> FILE REFERENCE: PF470P1
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/731,816
C--> 10 <141> CURRENT FILING DATE: 2000-12-08
10 <150> PRIOR APPLICATION NUMBER: 60/169,837
11 <151> PRIOR FILING DATE: 1999-12-09
13 <150> PRIOR APPLICATION NUMBER: 09/320,713
14 <151> PRIOR FILING DATE: 1999-05-27
16 <150> PRIOR APPLICATION NUMBER: 60/087,340
17 <151> PRIOR FILING DATE: 1998-05-29
19 <150> PRIOR APPLICATION NUMBER: 60/099,805
20 <151> PRIOR FILING DATE: 1998-09-10
22 <150> PRIOR APPLICATION NUMBER: 60/131,965
23 <151> PRIOR FILING DATE: 1999-04-30
25 <150> PRIOR APPLICATION NUMBER: PCT US99/11644
26 <151> PRIOR FILING DATE: 1999-05-27
28 <160> NUMBER OF SEQ ID NOS: 32
30 <170> SOFTWARE: PatentIn version 3.0
32 <210> SEQ ID NO: 1
33 <211> LENGTH: 705
34 <212> TYPE: DNA
35 <213> ORGANISM: HOMO SAPIENS
37 <220> FEATURE:
38 <221> NAME/KEY: CDS
39 <222> LOCATION: (2)..(262)
41 <400> SEQUENCE: 1
42 g tca cga 'gtg gac acg gat gag gac cgc tat cca cag aag ctg gcc ttc 49
43 Ala Arg Val Asp Thr Asp Glu Asp Arg Tyr Pro Gln Lys Leu Ala Phe
44 1 5 10 15
46 gcc gag tgc ctg tgc aga ggc tgt atc gat gca cgg acg ggc cgc gag 97
47 Ala Glu Cys Leu Cys Arg Gly Cys Ile Asp Ala Arg Thr Gly Arg Glu
48 20 25 30
50 aca gct gcg ctc aac tcc gtg cgg ctg ctc cag agc ctg ctg gtg ctg 145
51 Thr Ala Ala Leu Asn Ser Val Arg Leu Leu Gln Ser Leu Leu Val Leu
52 35 40 45
54 cgc cgc cgg ccc tgc tcc cgc gac ggc tcg ggg ctc ccc aca cct ggg 193
55 Arg Arg Arg Pro Cys Ser Arg Asp Gly Ser Gly Leu Pro Thr Pro Gly
56 50 55 60
58 gcc ttt gcc ttc cac acc gag ttc atc cac gtc ccc gtc ggc tgc acc 241
59 Ala Phe Ala Phe His Thr Glu Phe Tle His Val Pro Val Gly Cys Thr
60 65 70 75 80
62 tgc gtg ccc cgt tea qtg tgaccgccaa ggccgtgggg cccttagact 292
63 Cys Val Leu Pro Arg Ser Val
64 85
66 ggacacgtgt gtccccaaga gggcaccccc tatttatgtg tatttattgt tatttatgt 352

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68	cctcccccaa	cactaccctt	ggggctggg	cattccccgt	gtctggagga	cagccccca	412
70	ctgttctcct	catctccagc	ctcagtagtt	gggggtwgaa	ggagctcagc	acctcttcca	472
72	gcccttaaaq	ctgcagaaaa	ggtgtcacac	ggctgctgt	accttggyc	cctgtctgc	532
74	tcccggtctc	cattacceta	tcaactggct	caggccccg	caggctgcct	cttcccaacc	592
76	tccttggaaag	tacccctgtt	tcttaaacaa	ttatthaagt	gtacgtgtat	tattnaactg	652
78	atgaaacacaa	aaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaa	705
81	<210>	SEQ ID NO:	2				
82	<211>	LENGTH:	87				
83	<212>	TYPE:	PRT				
84	<213>	ORGANISM:	HOMO SAPIENS				
86	<400>	SEQUENCE:	2				
88	Ala Arg Val Asp Thr Asp Glu Asp Arg Tyr Pro Gln Lys Leu Ala Phe						
89	1	5	10	15			
92	Ala Glu Cys Leu Cys Arg Gly Cys Ile Asp Ala Arg Thr Gly Arg Glu						
93	20	25	30				
96	Thr Ala Ala Leu Asn Ser Val Arg Leu Leu Gln Ser Leu Leu Val Leu						
97	35	40	45				
100	Arg Arg Arg Pro Cys Ser Arg Asp Gly Ser Gly Leu Pro Thr Pro Gly						
101	50	55	60				
104	Ala Phe Ala Phe His Thr Glu Phe Ile His Val Pro Val Gly Cys Thr						
105	65	70	75	80			
108	Cys Val Leu Pro Arg Ser Val						
109	85						
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113	<211>	LENGTH:	1641				
114	<212>	TYPE:	DNA				
115	<213>	ORGANISM:	HOMO SAPIENS				
117	<220>	FEATURE:					
118	<221>	NAME/KEY:	CDS				
119	<222>	LOCATION:	(3)..(482)				
121	<400>	SEQUENCE:	3				
122	gg aat tcq gca cga gct cgt gcc qtq ctc aqt gcc ttc cac cac acg						47
123	Asn Ser Ala Arg Ala Arg Ala Val Leu Ser Ala Phe His His Thr						
124	1	5	10	15			
126	ctg cag ctg ggg ccg cgt gag cag gcg cgc aac gcg agc tgc ccg gca						95
127	Leu Gln Leu Gly Pro Arg Glu Gln Ala Arg Asn Ala Ser Cys Pro Ala						
128	20	25	30				
130	ggg ggc agg ccc gcc gac cgc cgc ttc cgg ccg ccc acc euc ctg cgc						143
131	Gly Gly Arg Pro Ala Asp Arg Arg Phe Arg Pro Pro Thr Asn Leu Arg						
132	35	40	45				
134	agc gtg tgc ccc tgg gcc tac aga atc tcc tac gac ccg gcg agg tac						191
135	Ser Val Ser Pro Trp Ala Tyr Arg Ile Ser Tyr Asp Pro Ala Arg Tyr						
136	50	55	60				
138	ccc agg lac ctg cct gaa gcc tac tgc ctg tgc ccg ggc tgc ctg acc						239
139	Pro Arg Tyr Leu Pro Glu Ala Tyr Cys Leu Cys Arg Gly Cys Leu Thr						
140	65	70	75				
142	ggg ctg ttc ggc gag gag gac gtg cgc ttc cgc agc gcc cct gtc tac						287
143	Gly Leu Phe Gly Glu Glu Asp Val Arg Phe Arg Ser Ala Pro Val Tyr						
144	80	85	90	95			

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Input Set : A:\PF470P1.ST25.txt
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232 Leu Phe Gly Glu Glu Asp Val Arg Phe Arg Ser Ala Pro Val Tyr Met
233 85 90 95
236 Pro Thr Val Val Leu Arg Arg Thr Pro Ala Cys Ala Gly Gly Arg Ser
237 100 105 110
240 Val Tyr Thr Glu Ala Tyr Val Thr Ile Pro Val Gly Cys Thr Cys Val
241 115 120 125
244 Pro Glu Pro Glu Lys Asp Ala Asp Ser Ile Asn Ser Ser Ile Asp Lys
245 130 135 140
248 Gln Gly Ala Lys Leu Leu Leu Gly Pro Asn Asp Ala Pro Ala Gly Pro
249 145 150 155 160
252 <210> SEQ ID NO: 5
253 <211> LENGTH: 155
254 <212> TYPE: PRT
255 <213> ORGANISM: HOMO SAPIENS
257 <400> SEQUENCE: 5
259 Met Thr Pro Gly Lys Thr Ser Leu Val Ser Leu Leu Leu Leu Ser
260 1 5 10 15
262 Leu Glu Ala Ile Val Lys Ala Gly Ile Thr Ile Pro Arg Asn Pro Gly
263 20 25 30
265 Cys Pro Asn Ser Glu Asp Lys Asn Phe Pro Arg Thr Val Met Val Asn
266 35 40 45
268 Leu Asn Ile His Asn Arg Asn Thr Asn Thr Asn Pro Lys Arg Ser Ser
269 50 55 60
271 Asp Tyr Tyr Asn Arg Ser Thr Ser Pro Trp Asn Leu His Arg Asn Glu
272 65 70 75 80
274 Asp Pro Glu Arg Tyr Pro Ser Val Ile Trp Glu Ala Lys Cys Arg His
275 85 90 95
277 Leu Gly Cys Ile Asn Ala Asp Gly Asn Val Asp Tyr His Met Asn Ser
278 100 105 110
280 Val Pro Ile Gln Glu Ile Leu Val Leu Arg Arg Glu Pro Pro His
281 115 120 125
283 Cys Pro Asn Ser Phe Arg Leu Glu Lys Ile Leu Val Ser Val Gly Cys
284 130 135 140
286 Thr Cys Val Thr Pro Ile Val His His Val Ala
287 145 150 155
289 <210> SEQ ID NO: 6
290 <211> LENGTH: 158
291 <212> TYPE: PRT
292 <213> ORGANISM: MUS MUSCULUS
294 <400> SEQUENCE: 6
296 Met Ser Pro Gly Arg Ala Ser Ser Val Ser Leu Met Leu Leu Leu
297 1 5 10 15
299 Leu Ser Leu Ala Ala Thr Val Lys Ala Ala Ala Ile Ile Pro Gin Ser
300 20 25 30
302 Ser Ala Cys Pro Asn Thr Glu Ala Lys Asp Phe Leu Gln Asn Val Lys
303 35 40 45
305 Val Asn Leu Lys Val Phe Asn Ser Leu Gly Ala Lys Val Ser Ser Arg
306 50 55 60
308 Arg Pro Ser Asp Tyr Leu Asn Arg Ser Thr Ser Pro Trp Thr Leu His

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309 65          70          75          80
311 Arg Asn Glu Asp Pro Asp Arg Tyr Pro Ser Val Ile Trp Glu Ala Gln
312           85          90          95
314 Cys Arg His Gln Arg Cys Val Asn Ala Glu Gly Lys Leu Asp His His
315           100         105         110
317 Met Asn Ser Val Leu Ile Gln Gln Glu Ile Leu Val Leu Lys Arg Glu
318           115         120         125
320 Pro Glu Ser Cys Pro Phe Thr Phe Arg Val Glu Lys Met Leu Val Gly
321           130         135         140
323 Val Gly Cys Thr Cys Val Ala Ser Ile Val Arg Gln Ala Ala
324 145           150         155
326 <210> SEQ ID NO: 7
327 <211> LENGTH: 151
328 <212> TYPE: PRT
329 <213> ORGANISM: VIRAL
331 <400> SEQUENCE: 7
333 Met Thr Phe Arg Met Thr Ser Leu Val Leu Leu Leu Ser Ile
334 1           5          10          15
336 Asp Cys Ile Val Lys Ser Glu Ile Thr Ser Ala Gln Thr Pro Arg Cys
337           20          25          30
339 Leu Ala Ala Asn Asn Ser Phe Pro Arg Ser Val Met Val Thr Leu Ser
340           35          40          45
342 Ile Arg Asn Trp Asn Thr Ser Ser Lys Arg Ala Ser Asp Tyr Tyr Asn
343           50          55          60
345 Arg Ser Thr Ser Pro Trp Thr Leu His Arg Asn Glu Asp Gln Asp Arg
346 65           70          75          80
348 Tyr Pro Ser Val Ile Trp Glu Ala Lys Cys Arg Tyr Leu Gly Cys Val
349           85          90          95
351 Asn Ala Asp Gly Asn Val Asp Tyr His Met Asn Ser Val Pro Ile Gln
352           100         105         110
354 Gln Glu Ile Leu Val Val Arg Lys Gly His Gln Pro Cys Pro Asn Ser
355           115         120         125
357 Phe Arg Leu Glu Lys Met Leu Val Thr Val Gly Cys Thr Cys Val Thr
358           130         135         140
360 Pro Ile Val His Asn Val Asp
361 145           150
363 <210> SEQ ID NO: 8
364 <211> LENGTH: 180
365 <212> TYPE: PRT
366 <213> ORGANISM: HOMO SAPIENS
368 <400> SEQUENCE: 8
370 Met Asp Trp Pro His Asn Leu Leu Phe Leu Leu Thr Ile Ser Ile Phe
371 1           5          10          15
373 Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg Lys Gly Gln
374           20          25          30
376 Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val Pro Leu Asp
377           35          40          45
379 Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu Glu Tyr Glu Arg
380           50          55          60

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FYI:

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY DATE: 12/26/2000
PATENT APPLICATION: US/09/731,816 TIME: 15:15:29

Input Set : A:\PF470P1.ST25.txt
Output Set: N:\CRF3\12262000\I731816.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:763 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:765 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:767 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:771 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:773 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:982 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:984 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:986 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:988 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:996 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:998 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:1051 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:1053 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:1086 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:1090 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:1092 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:1293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:1295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:1297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:1299 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30